

**MONTANA DEPARTMENT OF ENVIRONMENTAL QUALITY
OPERATING PERMIT TECHNICAL REVIEW DOCUMENT**

**Permitting and Compliance Division
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Williston Basin Interstate Pipeline Company
Hathaway Station

NE¼ of the SE¼ of Section 34, Township 7 North, Range 45 East in Custer County, Montana

The following table summarizes the air quality programs testing, monitoring, and reporting requirements applicable to this facility.

Facility Compliance Requirements	Yes	No	Comments
Source Tests Required	X		
Ambient Monitoring Required		X	
COMS Required		X	
CEMS Required		X	
Schedule of Compliance Required		X	
Annual Compliance Certification and Semiannual Reporting Required	X		As applicable
Monthly Reporting Required		X	
Quarterly Reporting Required		X	
Applicable Air Quality Programs			
ARM Subchapter 7 Montana Air Quality Permitting	X		Permit #1628-03
New Source Performance Standards (NSPS)	X		40 CFR 60, Subpart GG
National Emission Standards for Hazardous Air Pollutants (NESHAPS)		X	Except for 40 CFR 61, Subpart M
Maximum Achievable Control Technology (MACT)		X	
Major New Source Review (NSR)		X	
Prevention of Significant Deterioration (PSD)		X	
Risk Management Plan Required (RMP)		X	
Acid Rain Title IV		X	
State Implementation Plan (SIP)	X		General SIP

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SECTION I. GENERAL INFORMATION

A. Purpose

This document establishes the basis for the decisions made regarding the applicable requirements, monitoring plan, and compliance status of emission units affected by the operating permit proposed for this facility. The document is intended for reference during review of the proposed permit by the Environmental Protection Agency (EPA) and the public. It is also intended to provide background information not included in the operating permit and to document issues that may become important during modifications or renewals of the permit. Conclusions in this document are based on information provided in the original application submitted by Williston Basin Interstate Pipeline Company (WBI) on June 12, 1996, the significant modification application submitted by WBI on October 17, 2002, and the renewal applications submitted by WBI on January 30, 2003, and January 31, 2008.

B. Facility Location

WBI owns and operates a natural gas compressor station located in the Northeast ¼ of the Southeast ¼ of Section 34, Township 7 North, Range 45 East in Custer County, Montana. The facility is known as the Hathaway Compressor Station. Custer County is designated as an Unclassifiable/Attainment area for National Ambient Air Quality Standards (NAAQS) for all criteria pollutants. The facility is located approximately 12 miles southwest of Miles City, Montana.

C. Facility Background Information

Montana Air Quality Permit (MAQP)

On August 20, 1981, the Department of Environmental Quality (Department) received an application from Montana Dakota Utilities (MDU) for the operation of two 3,370-Horsepower (hp) natural gas compressor engines to be located in Custer County, Montana. The permit application was assigned **Permit #1628-00**. Permit #1628-00 became final on October 17, 1981.

On November 23, 1992, the Department received a request from MDU and WBI to modify Permit #1628-00. The modification transferred the permit from MDU to WBI. **Permit #1628-01** became final on January 22, 1993. Permit #1628-01 replaced Permit #1628-00.

On February 26, 1993, the Department received a letter from WBI requesting a modification to Permit #1628-01. The modification correctly identified each of the two 3,730-hp units as turbines rather than reciprocating engines. **Permit #1628-02** became final on May 7, 1993. Permit #1628-02 replaced Permit #1628-01.

On October 17, 2002, the Department received an application from WBI requesting an alteration to Permit #1628-02. The alteration replaced the existing 3,730-hp Solar Centaur turbine (Unit #02) with a refurbished 3,730-hp Solar Centaur turbine (new Unit #02). In addition, emission limits and testing requirements were added to the permit for the refurbished 3,730-hp Solar Centaur turbine (Unit #02) per the Administrative Rules of Montana (ARM) 17.8.715, as well as the existing 3,370-hp Solar Centaur turbine (Unit #01) as requested by WBI. Further, the permit was updated to reflect current Department permit format and permit language. On December 18, 2002, **Permit #1628-03** replaced Permit #1628-02.

Title V Operating Permit

On June 12, 1996, the Department received an operating permit application for the Hathaway Station. The permit application was deemed administratively complete on July 12, 1996, and the application was deemed technically complete on August 12, 1996. **Permit #OP1628-00** became final and effective on September 9, 1998.

On February 4, 1999, the Department received a letter from WBI requesting an administrative amendment to Permit #OP1628-00. WBI requested that the Department remove the 40 CFR 60, Subpart GG, nitrogen oxides (NO_x) standard and corresponding compliance demonstration, recordkeeping and reporting requirements from the Title V permit. WBI stated that because construction commenced prior to October 3, 1982, the NO_x requirement is not applicable to the Hathaway Station. The Department agreed with WBI and performed an administrative amendment to correct the error. However, the permit number did not change in the permit; but, the permit was saved as **Permit #OP1628-01** in the Department's electronic files. Therefore, the next permit action will increase the permit number from Permit #OP1628-00 to Permit #OP1628-02. On February 10, 1999, amended Permit #OP1628-00 replaced Permit #OP1628-00.

On October 17, 2002, the Department received an application from WBI requesting an alteration to Preconstruction Permit #1628-02, as well as a modification to Permit #OP1628-00. WBI requested the Department to significantly modify Permit #OP1628-00 to include the changes at the facility that were incorporated into the MAQP #1628-03. In addition, on January 30, 2003, the Department received a Title V Operating Permit Renewal Application from WBI. The application notified the Department that the only changes that have been made at the facility, since Permit #OP1628-00 was issued, were the changes requested in the significant modification application submitted on October 17, 2002.

The next permit action replaced an existing 3,730-hp Solar Centaur turbine with a refurbished 3,730-hp Solar Centaur turbine. In addition, emission limits and testing requirements were added to the permit for the refurbished 3,730-hp Solar Centaur turbine (EU #02) per ARM 17.8.752, as well as the existing 3,370-hp Solar Centaur turbine (EU #01) as requested by WBI. Further, the oil and diesel fuel tanks identified as EU #03 in Permit #OP1628-00, were removed from the permit and added to the insignificant emitting unit list. The permit was a result of the significant modification application of October 17, 2002, as well as the renewal application of January 29, 2003. **Permit #OP1628-02** replaced Permit #OP1628-00.

D. Current Permit Action

On January 31, 2008, the Department received a Title V operating permit renewal application from WBI. Since both of the units had undergone recent refurbishment (2002 for EU #02 and 2005 for EU #01), the Department requested WBI to confirm that the units have not been "constructed, reconstructed, or modified" since 1981. WBI reviewed the activities and costs associated with the recent refurbishment of each turbine and concluded the units have undergone routine maintenance and have not exceeded the 50% cost threshold. Therefore, the facility remains subject to 40 CFR 60, Subpart GG but exempted from the NO_x requirements of 40 CFR 60.332(a), as described under the exemption 40 CFR 60.332(e). The NO_x and carbon monoxide (CO) testing requirements for both units were modified to reflect the five-year testing requirements in MAQP #1628-03. In addition, the semi-annual portable analyzer testing requirements were modified to reflect the testing waiver granted to WBI if the turbines operated less than 500 hours during any semi-annual period (January 1 to June 30 or July 1 to December 31). The waiver was granted by the Department in a letter dated October 13, 2006. **Permit #OP1628-03** replaces Permit #OP1628-02.

E. Taking and Damaging Analysis

HB 311, the Montana Private Property Assessment Act, requires analysis of every proposed state agency administrative rule, policy, permit condition or permit denial, pertaining to an environmental matter, to determine whether the state action constitutes a taking or damaging of private real property that requires compensation under the Montana or U.S. Constitution. As part of issuing an operating permit, the Department is required to complete a Taking and Damaging Checklist. As required by 2-10-101 through 2-10-105, MCA, the Department conducted the following private property taking and damaging assessment.

YES	NO	
X		1. Does the action pertain to land or water management or environmental regulation affecting private real property or water rights?
	X	2. Does the action result in either a permanent or indefinite physical occupation of private property?
	X	3. Does the action deny a fundamental attribute of ownership? (ex.: right to exclude others, disposal of property)
	X	4. Does the action deprive the owner of all economically viable uses of the property?
	X	5. Does the action require a property owner to dedicate a portion of property or to grant an easement? [If no, go to (6)].
		5a. Is there a reasonable, specific connection between the government requirement and legitimate state interests?
		5b. Is the government requirement roughly proportional to the impact of the proposed use of the property?
	X	6. Does the action have a severe impact on the value of the property? (consider economic impact, investment-backed expectations, character of government action)
	X	7. Does the action damage the property by causing some physical disturbance with respect to the property in excess of that sustained by the public generally?
	X	7a. Is the impact of government action direct, peculiar, and significant?
	X	7b. Has government action resulted in the property becoming practically inaccessible, waterlogged or flooded?
	X	7c. Has government action lowered property values by more than 30% and necessitated the physical taking of adjacent property or property across a public way from the property in question?
	X	Takings or damaging implications? (Taking or damaging implications exist if YES is checked in response to question 1 and also to any one or more of the following questions: 2, 3, 4, 6, 7a, 7b, 7c; or if NO is checked in response to questions 5a or 5b; the shaded areas)

Based on this analysis, the Department determined there are no taking or damaging implications associated with this permit action.

F. Compliance Designation

The WBI Hathaway Station was last inspected on October 27, 2006. During the inspection, the facility was in compliance with both applicable air quality permits (MAQP #1628-03 and Title V Permit #OP1628-02). In addition, the Department reviewed records and reports for the facility since the last full compliance evaluation on November 30, 2004, and no problems or violations were found.

SECTION II. SUMMARY OF EMISSION UNITS

A. Facility Process Description

WBI's Hathaway Compressor Station is a natural gas pipeline booster station that utilizes two natural gas turbines to drive compressors that boost the pressure in the natural gas pipeline to allow the transmission of natural gas. The Hathaway Compressor Station transmits natural gas either east to WBI's Cabin Creek Compressor Station or west to WBI's Hardin Compressor Station.

B. Emission Units and Pollution Control Device Identification

Emissions Unit I.D.	Description	Installation Date	Last Refurbishment	NSPS Applicability	Pollution Control Device
EU001	3,730-hp Solar Centaur Turbine	12/18/81	2005	Subpart GG*	None
EU002	3,730-hp Solar Centaur Turbine	9/4/81	2002	Subpart GG*	None

Note: The units are subject to 40 CFR 60, Subpart GG, but are exempt from the NO_x requirements in 40 CFR 60.332(a) due to an exemption under 40 CFR 60.332(e).

C. Categorically Insignificant Sources/Activities

The Administrative Rules of Montana (ARM) 17.8.1201(22)(a) defines an insignificant emissions unit as one that emits less than 5 tons per year of any regulated pollutant, has the potential to emit less than 500 pounds per year of lead or any hazardous air pollutant, and is not regulated by any applicable requirement other than a generally applicable requirement. The insignificant emitting units at the WBI facility are summarized in the following table.

Insignificant Emissions Unit I.D.	Description
IEU001	1.35 MMBtu/hr Eclipse Water Heater
IEU002	0.05 MMBtu/hr ITT Grinnel Space Heater
IEU003	0.016 MMBtu/hr Magic Chef Space Heater
IEU004	0.044 MMBtu/hr AO Smith Water Heater
IEU005	1,000 Gallon Slop Oil Tank
IEU006	300 Gallon Diesel Fuel Tank
IEU007	1,000 Gallon New Oil Tank
IEU008	Fugitive Emissions from Process Valves, Etc.
IEU009	In-plant Vehicle Traffic

SECTION III. PERMIT CONDITIONS

A. Emission Limits and Standards

Each of the two 3,730-hp Solar Centaur turbines is limited to 16.45 pound per hour (lb/hr) for NO_x, 24.67 lb/hr for CO, and 8.22 lb/hr for volatile organic compounds (VOC). The emission limits are based on Best Available Control Technology (BACT) determinations that were established by the Department. In addition, the natural gas is limited to a sulfur content of 0.8% by weight and a sulfur dioxide (SO₂) content of 0.015 % by volume at 15% oxygen (O₂) as required under 40 CFR 60, Subpart GG.

B. Monitoring Requirements

ARM 17.8.1212(1) requires that all monitoring and analysis procedures or test methods required under applicable requirements are contained in operating permits. In addition, when the applicable requirement does not require periodic testing or monitoring, periodic monitoring must be prescribed that is sufficient to yield reliable data from the relevant time period that is representative of the source's compliance with the permit.

The requirements for testing, monitoring, recordkeeping, reporting, and compliance certification sufficient to assure compliance does not require the permit to impose the same level of rigor for all emission units. Furthermore, it does not require extensive testing or monitoring to assure compliance with the applicable requirements for emission units that do not have significant potential to violate emission limitations or other requirements under normal operating conditions. When compliance with the underlying applicable requirement for a insignificant emission unit is not threatened by lack of regular monitoring and when periodic testing or monitoring is not otherwise required by the applicable requirement, the status quo (**i.e., no monitoring**) will meet the requirements of ARM 17.8.1212(1). Therefore, the permit does not include monitoring for insignificant emission units.

The permit includes periodic monitoring or recordkeeping for each applicable requirement. The information obtained from the monitoring and recordkeeping will be used by the permittee to periodically certify compliance with the emission limits and standards. However, the Department may request additional testing to monitor compliance with the emission limits and standards.

C. Test Methods and Procedures

Compliance with the opacity, particulate from fuel combustion, sulfur compounds in fuel (gaseous), and VOC limitations in the permit may be demonstrated by burning pipeline quality natural gas on a continuous basis. In addition, WBI is required to conform with the requirements in 40 CFR 60, Subpart GG to demonstrate that the sulfur content of the natural gas is less than 0.8% by weight and the SO₂ content of the natural gas is less than 0.015 % by volume at 15% O₂ on a dry basis.

MAQP #1628-03 requires WBI to test each of the two 3,730-hp Solar Centaur turbines for NO_x and CO, concurrently, on an every 5-year basis to demonstrate compliance with the emission limitations in the permit. The permit demands that the tests be performed according to the EPA methods in Appendix A of 40 CFR 60. This operating permit also contains requirements for semi-annual testing with a portable analyzer for each of the two 3,730-hp Solar Centaur turbines. This permit stipulates that the portable analyzer shall be capable of achieving performance specifications equivalent to the traditional test methods in 40 CFR 60, Appendix A or shall be capable of meeting the requirements of EPA Conditional Test Method 022 for the "Determination of Nitric Oxide, Nitrogen Dioxide and NO_x from Stationary Sources by Electrochemical Analyzer."

In addition, in a letter dated October 12, 2006, the Department approved a testing waiver if a turbine operates less than 500 hours in a semiannual period (January 1 to June 30 or July 1 to December 31). The letter specifies that the semiannual test will still be performed regardless of hours of operation if any changes are made that may affect emissions. It also requires that hours of operation be documented and records kept for at least 5 years.

WBI may use another testing procedure as approved in advance by the Department. All compliance tests must be conducted in accordance with the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106).

WBI will then convert the NO_x and CO emissions test results from a “part per million (ppm)” value to a “lb/hr” number. Stack gas flow rates shall be determined using EPA Test Methods in 40 CFR 60, Appendix A in order to monitor compliance with the emissions limitations in the permit.

The Department will use the portable analyzer testing results as a direct measure of compliance. The operating permit may not require testing for all sources if routine monitoring is used to monitor compliance, but the Department has the authority to require testing if deemed necessary to monitor compliance with an emission limit or standard. In addition, the permittee may elect to voluntarily conduct compliance testing to monitor compliance status.

D. Recordkeeping Requirements

The permittee is required to keep all records listed in the operating permit as a permanent business record for at least 5 years following the date of the generation of the record.

E. Reporting Requirements

Reporting requirements are included in the permit for each emissions unit and Section V of the operating permit "General Conditions" explains the reporting requirements. However, the permittee is required to submit semi-annual and annual monitoring reports to the Department and to annually certify compliance with the applicable requirements contained in the permit. The reports must include a list of all emission limit and monitoring deviations, the reason for any deviation, and the corrective action taken as a result of any deviation.

F. Public Notice

In accordance with ARM 17.8.1232, a public notice was published in the *Miles City Star* newspaper on or before April 3. The Department provided a 30-day public comment period on the draft operating permit from April 7, to May 7. ARM 17.8.1232 requires the Department to keep a record of both comments and issues raised during the public participation process. The comments and issues received by May 7 will be summarized, along with the Department's responses, in the following table. All comments received during the public comment period will be promptly forwarded to WBI so they may have an opportunity to respond to these comments as well.

Summary of Public Comments

Person/Group Commenting	Comment	Department Response

G. Draft Permit Comments

Summary of Permittee Comments

Permit Reference	Permittee Comment	Department Response

Summary of EPA Comments

Permit Reference	EPA Comment	Department Response

SECTION IV. NON-APPLICABLE REQUIREMENT ANALYSIS

Section IV of the operating permit “Non-Applicable Requirements” contains the requirements that the Department determined were non-applicable. The following table summarizes the requirements that WBI identified as non-applicable and contains the reasons that the Department did not include these requirements as non-applicable in the permit.

Applicable Requirement	Reason Not Included in Permit
40 CFR 61, Subpart M National Emissions Standards for Hazardous Air Pollutants - Asbestos	This is a federal regulation that has specific procedural requirements that may become relevant to the major source during the permit term.

SECTION V. FUTURE PERMIT CONSIDERATIONS

A. MACT/NESHAP Standards

National Emission Standards for Hazardous Air Pollutants From Oil and Natural Gas Production Facilities (40 CFR 63, Subpart HH) and National Emission Standards for Hazardous Air Pollutants From Natural Gas Transmission and Storage Facilities (40 CFR 63, Subpart HHH) were promulgated June 17, 1999. National Emission Standards for Hazardous Air Pollutants for Stationary Combustion Turbines (40 CFR 63, Subpart YYYY) was promulgated March 5, 2004. As of the issuance date of Permit #OP1628-03, WBI is not subject to any of these subparts, because the facility does not meet the definition of a major source of hazardous air pollutants as defined in each subpart and there are no emitting units (triethylene glycol dehydrators) that would trigger the area source provisions of 40 CFR 63, Subpart HH..

B. NSPS Standards

As of the issuance date of Permit #OP1628-03, the Department is unaware of any future NSPS Standards that may be promulgated that will affect this facility.

C. Risk Management Plan

As of the issuance date of Permit #OP1628-03, this facility does not exceed the minimum threshold quantities for any regulated substance listed in 40 CFR 68.115 for any facility process. Consequently, this facility is not required to submit a Risk Management Plan.

If a facility has more than a threshold quantity of a regulated substance in a process, the facility must comply with 40 CFR 68 requirements no later than June 21, 1999; three years after the date on which a regulated substance is first listed under 40 CFR 68.130; or the date on which a regulated substance is first present in more than a threshold quantity in a process, whichever is later.

D. Compliance Assurance Monitoring (CAM) Applicability

An emitting unit located at a Title V facility that meets the following criteria listed in ARM 17.8.1503 is subject to Subchapter 15 and must develop a CAM Plan for that unit:

- The emitting unit is subject to an emission limitation or standard for the applicable regulated air pollutant (other than emission limits or standards proposed after November 15, 1990, since these regulations contain specific monitoring requirements);
- The emitting unit uses a control device to achieve compliance with such limit; and
- The emitting unit has potential pre-control device emission of the applicable regulated air pollutant that are greater than major source thresholds.

WBI does not currently have any emitting units that meet all the applicability criteria in ARM 17.8.1503, and is therefore not currently required to develop a CAM Plan.